

Mouse Sdccag1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP19221a**Specification**

Mouse Sdccag1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [Q8CCP0](#)**Mouse Sdccag1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 66244**Other Names**

Nuclear export mediator factor Nemf, Serologically defined colon cancer antigen 1 homolog, Nemf, Sdccag1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Sdccag1 Antibody (N-term) Blocking Peptide - Protein Information**Name** Nemf {ECO:0000303|PubMed:32934225, ECO:0000312|MGI:MGI:1918305}**Function**

Key component of the ribosome quality control complex (RQC), a ribosome-associated complex that mediates the extraction of incompletely synthesized nascent chains from stalled ribosomes as well as their ubiquitin-mediated proteasomal degradation (PubMed:33406423). Thereby, frees 60S subunit ribosomes from the stalled translation complex and prevents the accumulation of nascent polypeptide chains that are potentially toxic for the cell (PubMed:33406423). Within the RQC complex, NEMF specifically binds stalled 60S ribosomal subunits by recognizing an exposed, nascent chain-conjugated tRNA moiety and promotes the recruitment of LTN1 to stalled 60S subunits (By similarity). Following binding to stalled 60S ribosomal subunits, NEMF mediates CAT tailing by recruiting alanine-charged tRNA to the A-site and directing the elongation of stalled nascent chains independently of mRNA or 40S subunits, leading to non-templated C-terminal alanine extensions (CAT tails) (PubMed:33406423). Mainly recruits alanine- charged tRNAs, but can also other amino acid-charged tRNAs (By similarity). CAT tailing is required to promote ubiquitination of stalled nascent chains by different E3 ubiquitin-protein ligases (By similarity). In the canonical RQC pathway (RQC-L), CAT tailing facilitates LTN1-dependent ubiquitination by exposing lysine residues

that would otherwise remain buried in the ribosomal exit tunnel (By similarity). In the alternative RQC pathway (RQC-C) CAT tailing creates an C-degron mainly composed of alanine that is recognized by the CRL2(KLHDC10) and RCHY1/PIRH2 E3 ligases, leading to ubiquitination and degradation of stalled nascent chains (By similarity). NEMF may also indirectly play a role in nuclear export (By similarity).

Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:O60524}. Nucleus {ECO:0000250|UniProtKB:O60524}

Mouse Sdccag1 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Mouse Sdccag1 Antibody (N-term) Blocking Peptide - Images**Mouse Sdccag1 Antibody (N-term) Blocking Peptide - Background**

SDCG1, serologically defined colon cancer antigen 1, belongs to the SDCCAG1 family. 2 isoforms of the human protein are produced by alternative splicing.

Mouse Sdccag1 Antibody (N-term) Blocking Peptide - References

Zambrowicz, B.P., et al. Proc. Natl. Acad. Sci. U.S.A. 100(24):14109-14114(2003) Stryke, D., et al. Nucleic Acids Res. 31(1):278-281(2003)